

Claims 1-22(canceled)

Claim 23. (New) A portable high efficiency electrostatic sampling device comprising:

- (a) at least one discharge electrode,
- (b) a high voltage power supply operatively connected to said at least one electrode,
- (c) a power source operatively connected to said high voltage power supply and at least one discharge electrode, wherein said high voltage power supply effects ionization which generates an electrostatic charge from said at least one electrode which permits capture of viable organisms which remain viable throughout a sampling period and a subsequent incubation period, and
- (d) a grounded, conductive collection surface.

24.(New) The device of claim 23 further comprising a voltage regulator operatively connected to said power source and said high voltage power supply.

25.(New) The device of claim 23 further comprising a first sealed compartment creating a water-tight enclosure of electronic parts.

26. (New) The device of claim 25 further comprising a second sealed compartment creating a water-tight enclosure of said power source.

27. (New) The device of claim 23 wherein said power source is selected from the group consisting of at least one battery, an AC powered adaptor with a DC output, and combinations thereof.

28. (New) The device of claim 23 wherein said grounded, conductive material is selected from the group consisting of water, cell culture media, microbiological media, metal material and conductive carbon.

29. (New) A method for collecting airborne particulates comprising:

(a) placing a portable high efficiency electrostatic sampling device of claim 23 in a vicinity to be sampled,

(b) applying a high negative voltage to at least one discharge electrode to create a strong electrostatic field close to a grounded, conductive material wherein said electrostatic field permits capture of viable organisms which remain viable throughout a sampling period and a subsequent incubation period, and

(c) collecting airborne particulates in or on said grounded,

conductive material.

30. (New) The method of claim 29 wherein said airborne particulates include at least one microorganism.

31. (New) A method for collecting airborne particulates comprising:

(a) placing a portable, high efficiency electrostatic sampling device of claim 24 in a vicinity to be sampled,

(b) applying a high negative voltage to at least one discharge electrode to create a strong electrostatic field to airborne particulates wherein said electrostatic field permits capture of viable organisms which remain viable throughout a sampling period and a subsequent incubation period, and

(c) collecting at least one viable organism in or on a grounded, conductive material.

32. (New) The method of claim 31 wherein said at least one organism is a microorganism.